



18 APR 2005

(43) International Publication Date  
29 April 2004 (29.04.2004)

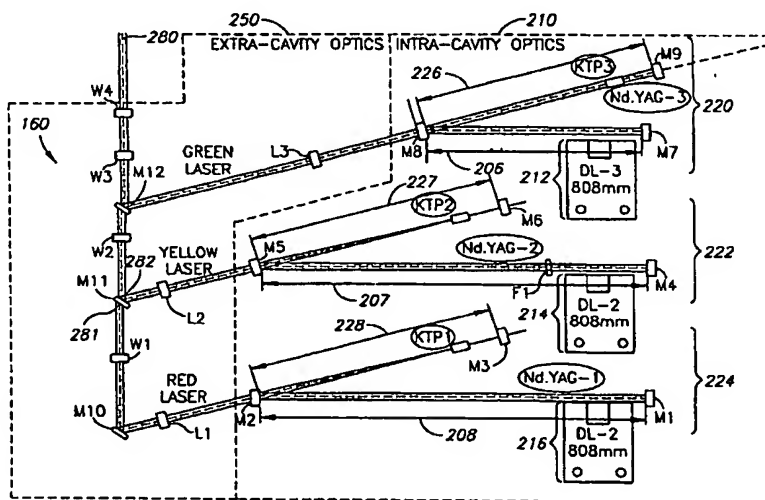
PCT

(10) International Publication Number  
WO 2004/036705 A1

- (51) International Patent Classification<sup>7</sup>: H01S 3/10
- (21) International Application Number: PCT/US2003/029132
- (22) International Filing Date: 16 October 2003 (16.10.2003)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:  
60/418,719 17 October 2002 (17.10.2002) US
- (71) Applicant (for all designated States except US): LUMENIS INC. [US/US]; 2400 Condensa Street, Santa Clara, CA 95051 (US).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): MORDAUNT, David, Haydn [GB/US]; 32116 Summit Road, Los Gatos, CA 95033 (US). CHRISTENSEN, Steven, Scott [US/US]; 38820 Judie Way, Fremont, CA 94536 (US). FERRO, Allison, Albrecht [US/US]; 4714 Valpey Park Ave, Fremont, CA 94538 (US).
- (54) Agent: POLLACK, Caleb; Eitan, Pearl, Latzer & Cohen Zedek, L.L.P., 10 Rockefeller Plaza, Suite 1001, New York, NY 10020 (US).
- (81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW.
- (84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).
- Published:  
— with international search report  
— before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

[Continued on next page]

(54) Title: SYSTEM, METHOD, AND APPARATUS TO PROVIDE LASER BEAMS OF TWO OR MORE WAVELENGTHS



(57) Abstract: A system, apparatus, and method may provide laser beams of two or more wavelengths from diode pumped solid-state laser sources (220, 222, 224). The beam paths of these laser beams with different wavelengths, which are generated by the laser sources (220, 222, 224), may be aligned along a common optical axis 280 by an optical configuration, to treat at least one target area. Frequency-doubled laser beams, output from a plurality of diode pumped solid state laser cavities, may be passed through fold mirrors (M2, M5, M8), and combined on a common optical axis 280, using one or more combiner mirrors (M10, M11, M12), to unify the beam paths. Selected laser beams may be delivered to a target using one or more delivery systems.

WO 2004/036705 A1